

REMARKS

This amendment is filed in response to the Official Action mailed January 30, 2007. Applicant submits herewith a request for continued examination in light of the finality of the January 30, 2007 Official Action. Applicant also submits herewith a three-month extension petition to reset the deadline for responding to the Official Action to and including July 30, 2007. In view of the following amendments and remarks, reconsideration of the Examiner's rejections and Notice of Allowance of all pending claims is respectfully requested.

Claims 1-31 and 39-42 are pending in this application. Each of these claims presently stands rejected.

Claims 1-2, 4-5, and 7 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,146,383 issued to Studer et al. ("Studer"). Of claims 1-2, 4-5, and 7, only claim 1 is independent with the others ultimately depending therefrom.

As the Examiner may recall, claim 1 was rejected over Studer in the prior Official Action. In that Action, the Examiner contended that axial and sliding movement similar to that claimed in the present application may be achieved between coupling element (3) and fixation element (1) of Studer. The Examiner cited the differences between FIGS. 1 and 2 of Studer to represent sliding and axial movement.

In response, the Applicant agreed that there appeared to be axial movement between coupling element (3) and fixation element (1) of Studer, but disagreed that there was any sliding whatsoever. Applicant pointed out that in fact, head part (2), which is engaged within coupling element (3), is screwed into fixation element (1). As such, there could clearly be no sliding of the elements. The very nature of a screwed

attachment prohibits sliding, as sliding would entail slipping of the threaded connection.

Yet, allowing sliding, and particularly allowing locking at any part of the sliding path, is highly beneficial during a procedure utilizing the apparatus taught in the present application. During such a procedure, the unitary coupling containing a ball ring may be slid over the fixation device in a quick manner, rather than having to be screwed into place. Screwing action clearly requires a high level of dexterity and can be time consuming. Additionally, with the apparatus of the present invention, the height of the unitary coupling may be altered slightly at the surgical site simply by raising or lowering the unitary coupling with the ball ring in relation to the fixation device, even if the spinal rod has already been affixed. Once the height of the device is altered, it may be locked into place. If the device requires screwing (like *Studer*) to make height adjustments, then it would be more difficult, or impossible (depending upon other elements involved in the system) to make such an adjustment once the spinal rod has been affixed. For example, a previously fixed spinal rod may not permit the coupling to rotate, thus prohibiting any screwing action from occurring after the spinal rod is fixed. The present invention provides a novel, unobvious, and highly beneficial device for use in spinal surgery.

In order to more distinctly claim this sliding feature and to move this application toward allowance, Applicant has amended claim 1 to further specify that the sliding movement of the coupling element relative to the fixation element is linear and not merely axial. If any movement is shown by *Studer et al.*, it is in the form of pivoting, and not sliding. This is specifically shown in the difference between FIG. 1 and FIG. 2 of *Studer*, where deviations (25) of the pivotal position (8) are

present. (See *Studer*, Fig. 3 and col. 4 ll. 34-32). Pivoting is simply not sliding. Pivoting is to cause something to rotate, revolve, or turn. Sliding is to move something along in continuous contact with a surface. Lastly, linear represents an arrangement in a line. Linear sliding movement cannot be recreated with a screwed fitting, such as that of *Studer*. According, it is firmly believed that amended claim 1 is allowable over the *Studer* reference alone.

Applicant has also amended claim 1 to specify that the first locking element is adapted to secure the head portion of the fixation element along the length of the head portion. It is clear from the drawings and the specification that the sliding adjustment range of the inventive disclosure may be limited by the length of the screw head. *Struder*, which is submitted to provide no sliding at all, certainly does not allow movement along substantially the entire length of the head. *Studer* permits the pivoting shown in Fig. 2, but attachment of the coupling is always at a point identified in Fig. 2 by the crosshairs located at the center of the spherical head part (9). No attachment at multiple positions is provided by *Studer*. For this additional reason, it is firmly believed that amended claim 1 is in a condition for allowance.

As claims 2, 4-5, and 7 depend ultimately from claim 1, it is further believed that each such claim is allowable over *Studer*. Additionally, it is believed that such claims include additional patentable subject matter.

Claims 3, 8-16, 19-31, and 39-42 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Studer* in view of U.S. Patent No. 5,501,684 issued to Schlapfer et al. ("Schlapfer"). Claims 17 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of *Studer* and *Schlapfer* in further view of U.S. Patent No. 6,123,706 issued to

Lange ("Lange"). Finally, claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Studer in view of U.S. Patent No. 6,280,443 issued to Gu et al. ("Gu").

Of the consolidated rejected claims, namely claims 3, 6, 8-31 and 39-42, only claims 19, 25-26, 29, and 31 are independent. Each of the independent claims, along with independent claim 1 from which claims 3, 6, and 8-18 depend (and which is not directly at issue here), generally requires sliding movement of the coupling element relative to the fixation element. Each claim also requires a unitary coupling. Each claim has also been amended to generally require the ability to lock the first coupling along the length of the screw head.

As detailed above, a unitary coupling adapted to slidingly receive a fixation element and to lock the fixation element at multiple positions is novel and non-obvious over Studer. The addition of Schlapfer, Lange, or Gu, does not alter this conclusion, as none of those references teach the missing aspects of Studer as presently claimed. Accordingly, it is firmly believed that each of the independent claims, namely claims 19, 25-26, 29, and 31, are allowable over the references cited. Reconsideration of the Examiner's rejections and allowance of such claims is earnestly solicited.

Based on the anticipated allowance of independent claims 19, 25-26, 29, and 31, and the anticipated allowance of claim 1, each of claims 3, 6, 8-18, 20-24, 27-28, 30, and 39-42, are believed to be allowable. Additionally, such claims are believed to include patentable subject beyond that provided in the independent claims from which they depend.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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